

IN THE CLAIMS

1-22. (Cancelled)

23. (New) A catalytic converter subassembly comprising:  
an exhaust manifold comprising a manifold wall;  
a catalytic converter shell, wherein a portion of said catalytic converter shell is disposed within said manifold wall; and  
a catalyst substrate disposed in said catalytic converter shell.

24. (New) The catalytic converter subassembly of Claim 23, wherein said catalytic converter shell is disposed within said manifold wall such that said catalytic converter shell is locked into position within said manifold wall to form a gas tight seal.

25. (New) The catalytic converter subassembly of Claim 23, wherein said manifold wall comprises a manifold wall thickness greater than a catalytic converter shell thickness of said catalytic converter shell.

26. (New) The catalytic converter subassembly of Claim 25, wherein said manifold wall thickness is 3 mm to 4 mm, and said catalytic converter shell thickness is 1mm to 2 mm.

27. (New) The catalytic converter subassembly of Claim 23, wherein said manifold wall is metallurgically bound to said catalytic converter shell.

28. (New) The catalytic converter subassembly of Claim 23, wherein said portion of said catalytic converter shell comprises a retention feature selected from the group consisting of bumps, flares, grooves, and any combination comprising at least one of the foregoing.

29. (New) The catalytic converter subassembly of Claim 23, wherein said manifold comprises cast iron and said catalytic converter shell comprises stainless steel.

30. (New) The catalytic converter subassembly of Claim 23, further comprising:

a mat support material disposed between said catalytic converter shell and said catalyst substrate; and

a mat protection ring, wherein a first portion of said mat protection ring is disposed in said manifold wall and a second portion of said mat protection ring is in physical communication with said mat support material.

31. (New) A catalytic converter subassembly comprising:  
an exhaust manifold comprising a manifold wall;  
a catalytic converter shell comprising an inner endcone and an outer endcone, wherein a portion of each said inner endcone and said outer end cone are disposed within said manifold wall; and  
a catalyst substrate disposed in said catalytic converter shell.

32. (New) A catalytic converter subassembly, comprising:  
an exhaust manifold comprising a manifold wall;  
a catalytic converter comprising a catalytic converter shell disposed around a catalyst; wherein a portion of said catalytic converter shell is cast within an end of said manifold wall.